Sup the

17

2**0** 

25

I claim:

- 1. A device in a network including at least three devices, comprising: a receiver designed to receive a communication from at least one other device; a transmitter designed to transmit messages to at least one other device; and a synchronization system designed to synchronize with a second device.
- 2. A device according to claim 1, further comprising a synchronization table listing synchronization information for the device.
- 3. A device according to claim 2, wherein the synchronization table includes a device identifier, a communications frequency, a communications technology, and a time interval for resynchronization.
  - 4. A device according to claim 1, wherein the synchronization system includes an arbitrator for arbitrating a communications frequency, a communications technology, and a time interval with the second device.
  - 5. A device according to claim 4, wherein the synchronization system further includes a synchronization table updater designed to update a synchronization table to reflect a device identifier for the second device, the communications frequency, the communications technology, and the time interval.
  - 6. A method for a first device to communicate with a second device in a network including at least the first device, the second device, and a third device, comprising: discovering the second device; determining a synchronization period with the second device; and synchronizing with the second device independently of the third device.
    - 7. A method according to claim 6, further comprising:
      discovering the third device;
      determining a synchronization period with the third device; and
      synchronizing with the third device independently of the second device.

30

and

5

10

20

4

25

- synchronizing the second device with the third device independently of the first device.
- 9. A method according to claim 6, wherein discovering a second device includes discovering a second device within range of the first device.
- 10. A method according to claim 6, wherein determining a synchronization period includes arbitrating a time interval between synchronizations.
  - 11. A method according to claim 10, further comprising re-synchronizing with the second device after the time interval.
  - 12. A method according to claim 6, wherein determining the synchronization period includes arbitrating a frequency for communicating between the first device and the second device.
  - 13. A method according to claim 6, wherein determining the synchronization period includes arbitrating a communications technology for communicating between the first device and the second device.
  - 14. A method according to claim 6, wherein synchronizing with the second device includes resetting a clock in the first device.
    - 15. A method according to claim 6, wherein synchronizing with the second device includes informing the second device that the first device has data to transmit.
      - 16. A method according to claim 14, further comprising: arbitrating a time to transmit the data to the second device; and transmitting the data to the second device at the arbitrated time.

30

18. A method according to claim 17, wherein determining a new synchronization period includes determining at least one of a new frequency, a new communications technology, and a new time interval.

19. An article comprising:

5

10

-

13

a storage medium, said storage medium having stored thereon instructions that, when executed by a first device in a network including at least the first device, a second device, and a third device, result in

discovering the second device;

determining a synchronization period with the second device; and synchronizing with the second device independently of the third device.

- 20. An article according to claim 19, further comprising: discovering the third device; determining a synchronization period with the third device; and synchronizing with the third device independently of the second device.
- 21. An article according to claim 19, further comprising: discovering the third device by the second device; determining a synchronization period between the second device and the third device;

25 and synchronizing the second device with the third device independently of the first device.

22. An article according to claim 19, wherein discovering a second device includes discovering a second device within range of the first device.

- 23. An article according to claim 19, wherein the storage medium has further stored thereon instructions, that, when executed by the first device, result in determining a synchronization period includes arbitrating a time interval between synchronizations.
- 5 24. An article according to claim 23, further comprising re-synchronizing with the second device after the time interval.
  - 25. An article according to claim 19, wherein determining the synchronization period includes arbitrating a frequency for communicating between the first device and the second device.
    - An article according to claim 19, wherein determining the synchronization period includes arbitrating a communications technology for communicating between the first device and the second device.
    - 27. An article according to claim 19, wherein synchronizing with the second device includes resetting a clock in the first device.
    - 28. An article/according to claim 19, wherein synchronizing with the second device includes informing the second device that the first device has data to transmit.
    - 29. An article according to claim 28, wherein the storage medium has further stored thereon instructions, that, when executed by the first device, result in: arbitrating a time to transmit the data to the second device; and transmitting the data to the second device at the arbitrated time.
    - 30. An article according to claim 19, wherein the storage medium has further stored thereon instructions, that, when executed by the first device, result in determining a new synchronization period with the second device.
    - 31. An article according to claim 30, wherein determining a new synchronization period includes determining at least one of a new frequency, a new communications technology, and a new time interval.

10

F. L.1 F.

<u>=</u>

25